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UNITED STATES PATENT AND TRADEMARK OFFICE

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09/657,604	09/08/2000	Jackson Brandenburg	388022000700	2714

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Edward J. Radlo, Esq.
(SONNENSCHEIN NATH & ROSENTHAL LLP)
6th Floor
685 Market Street
San Francisco, CA 94105

EXAMINER
LAFORGIA, CHRISTIAN A

ART UNIT	PAPER NUMBER
2131	

DATE MAILED: 03/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/657,604	BRANDENBURG ET AL.
	Examiner	Art Unit	
	Christian La Forgia	2131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _15 December 2005_.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-37_ is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) _1-37_ is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set forth in

37 CFR 1.17(e), was filed in this application after final rejection. Since this application is

eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e)

has been timely paid, the finality of the previous Office action has been withdrawn pursuant to

37 CFR 1.114. Applicant's submission filed on 15 December 2005 has been entered.

2.   Claims 1-37 have been presented for examination.

Response to Arguments

3.   Applicant's arguments filed 15 December 2005 have been fully considered but they are

not persuasive.

4.   In response to the Applicant's argument that the web application is located at the seller's

web site, the Examiner disagrees. As cited below, column 5, lines 11-31 disclose the merchant's

web server to return specific MIME data to the purchaser's web browser.   Also disclosed in the

cited section is block 116 of figure 1, which is the merchant charge system interface and is

further discussed in column 7, line 37 to column 9, line 22.

5.   Therefore, the Examiner holds that Cook discloses a web application coupled to the web

server and also located at the seller's web site.

6.   In response to the Applicant's arguments that none of the cited references disclose HTTP

or HTTP requests, the Examiner respectfully disagrees. The Cook, Linehan, and Tozzoli

references are all related in their disclosures of electronic commerce, hereinafter e-commerce, or

Internet transactions. **Newton's Telecom Dictionary** defines HTTP as the standard way of

transferring information across the Internet and the World Wide Web. It [HTTP] supports a

variety of media and file formats across a variety of platforms. HTTP is the actual protocol used

by the Web server and the client browser to communicate over the "wire." In short, [HTTP is]

the protocol for moving documents around the Internet.

7.   Since all the cited reference disclose the use of the Internet or the World Wide Web, all

the reference are believed to incorporate HTTP and HTTP requests.

8.   In response to the Applicant's arguments response that the web application does not

identify when the services of another other than the seller, the Examiner disagrees. The

merchant's interface can access the services of payment system or the authorization center as

illustrated by figures 1 and 3, as well as columns 11 and 12.

9.   In response to applicant's arguments against the references individually, one cannot show

nonobviousness by attacking references individually where the rejections are based on

combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re

Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

10.   As per the Applicant's arguments regarding the Examiner's motivation for using ISAPI

and an abstracted front-end because it is known in the art that it is an easy-to-use, high

performance interface for back-end applicants and has significant performance advantages over

the CGI specification, such as having is own dynamic link library. The Examiner found the

motivation for the 103 rejection of both claims from **Microsoft Computer Dictionary, 5th**

Edition, on page 290.

11.   See further rejections that follow.

Claim Rejections - 35 USC § 101

12.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

13.   As per claims 1-36, merely claimed as a computer program representing a computer listing *per se*, that is, descriptions or expressions of such a program and that is, descriptive material *per se*, non-functional descriptive material, and is not statutory because it is not a physical "thing" nor a statutory process, as there are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed aspects of the invention which permit the computer program's functionality to be realized. Since a computer program is merely a set of instructions capable of being executed by a computer, the program itself is not a process, without the computer-readable medium needed to realize the computer program's functionality. In contrast, a claimed computer-readable medium encoded with a computer program defines structural and functional interrelationships between the computer program and the medium which permit the computer program's functionality to be realized, and is thus statutory. **Warmerdam**, 33 F.3d at 1361, 31 USPQ2d at 1760. **In re Sarkar**, 588 F.2d 1330, 1333, 200 USPQ 132, 137 (CCPA 1978). See MPEP § 2106(IV)(B)(1)(a).

14.   As per claims 1-36, the Applicant claims integrating a seller's web site with a public key infrastructure, wherein the public key infrastructure comprises a buyer computer having a Web browser adapted to invoke a signing interface to digitally sign electronic messages, which is an Applet as disclosed on page 8 of the Spec. The claim proceeds to claim a seller's bank computer system adapted to receive service requests from the seller and to respond to those requests and

the seller's Web site comprises a filter adapted to redirect HTTP requests received from the Web

browser, wherein the filter is implemented using Microsoft Internet Server Application

Programming Interface according to page 10 of the specification. Sample code for implementing

the filter is shown in figure 4. The next limitation discloses coupled to the filter, an Internet

server application adapted to receive a redirected HTTP request from the filter and to process the

redirected HTTP requests, which is disclosed as a servlet or defined as a Internet server

application on page 10 of the specification, and is further elaborated upon on pages 11-14 and

Figure 5. Finally, the Applicant claims coupled to the Internet server application, a filter engine

adapted to receive the processed HTTP request and to identify an HTTP request that contains

data requiring a digital signature by the buyer computer, which is defined as a public class object

that extends java.lang.Object on pages 15-16.

Claim Rejections - 35 USC § 112

15.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

16.   Claims 1-16, 23-25, 28, 29, and 31-34 are rejected under 35 U.S.C. 112, second

paragraph, as being incomplete for omitting essential structural cooperative relationships of

elements, such omission amounting to a gap between the necessary structural connections. See

MPEP § 2172.01. The omitted structural cooperative relationships are: the filter, the Internet

server application and the filter engine. The Applicant discloses an apparatus, but fails to

provide any tangible embodiments of the filter, the Internet server application, and the filter

engine.

Claim Rejections

17.   The text of those sections of Title 35, U.S. Code not included in this action can be found

in a prior Office action.

18.   Claim 37 is rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No.

6,675,153 to Cook et al., hereinafter Cook.

19.   As per claim 37, Cook teaches an apparatus for integrating a seller's Web site with a

public key infrastructure, said apparatus comprising:

a Web server located at the seller's Web site, see figures 1, blocks 106, 108, 3, blocks

106, 108, see also column 4, lines 42-46, column 5, lines 11-31;

a Web application coupled to the Web server and also located at the seller's Web site, the

Web application adapted to:

identify those HTTP requests from a buyer that include data requiring a digital signature

of the buyer, see figures 1, block 116, 2, blocks 114, 118, see column 1, line 62 to column 2, line

6, column 5, lines 11-31, column 6, lines 17-28, column 7, line 37 to column 9, line 22;

create a Web page for transmission to a browser controlled by the buyer that will cause

the browser to invoke a signing interface to digitally sign the data, see figures 1, block 116, 2,

blocks 114, 118, see column 1, line 62 to column 2, line 6, column 5, lines 11-31, column 6,

lines 17-28, column 7, line 37 to column 9, line 22; and

identify HTTP requests that require a service provided by an entity other than the seller,

see figures 1, blocks 102, 104, 3, blocks 102, 104, as well as column 11, line 60 to column 12,

line 40; and

coupled to the Web application and also located at the seller's Web site, an interface

module adapted to receive a request for service from the Web application, format and transmit

the request, receive a response to the request, and forward the response to the Web application,

see figure 1, blocks 102, 104, 3 blocks 102, 104, as well as column 4, lines 56-64, column 9, line

23 to column 10, line 8.

20.   Claims 1- 3, 5-9, 20, 21, 23-25, 28, 29, and 31-34 are rejected under 35 U.S.C. 103(a) as

being unpatentable over SET as taught by U.S. Patent No. 6,327,578 to Linehan, hereinafter

referred to as SET, in view of U.S. Patent No. 5,717,989 to Tozzoli et al., hereinafter Tozzoli.

21.   As per claim 1, SET teaches an apparatus for integrating a seller's Web site with a public

key infrastructure, wherein:

the public key infrastructure comprises a buyer computer having a Web browser adapted

to invoke a signing interface to digitally sign electronic messages and a seller's bank computer

system adapted to receive service requests from the seller and respond to those requests with

digitally signed service responses comprising, see figure 1, see also column 3, lines 15-23, i.e.

while on the internet, "the merchant's computer 104 forwards the consumer's payment request

over internet path 122 during a second step to an acquirer gateway 106 operating on behalf of the

acquirer bank 108"; the seller's Web site comprises:

redirecting HTTP requests received from the Web browser, see figure 1, see also column

3, lines 15-23, i.e. while on the internet, "the merchant's computer 104 forwards the consumer's

payment request over internet path 122 during a second step to an acquirer gateway 106

operating on behalf of the acquirer bank 108";

coupled to the filter, an Internet server application adapted to receive a redirected HTTP

request and process the redirected HTTP request, see figure 1, see also column 3, lines 23-32, i.e.

"The acquirer gateway 106 passes the consumer's payment request to the acquirer bank 108 over

a private network path 122'. The acquirer bank 108 sends the consumer's payment request to the

card issuing bank 112 over the private network path 124 to check whether the consumer's credit

or debit card account is active and sufficient for the proposed transaction with the merchant. The

issuing bank 112, as the card issuer, authorizes the transaction in a message sent over the private

path 126 to the acquiring bank 108. The acquiring bank 108 sends the transaction authorization

over private path 128' to the acquirer gateway 106, signing the message with the acquiring

bank's digital signature";

coupled to the Internet server application, a filter engine adapted to receive the processed

HTTP request and to identify an HTTP request that contains data requiring a digital signature by

the buyer computer, see figure 1 and column 3, lines 32-39, i.e. "The acquirer gateway 106

forwards it over the internet path 128 to the merchant, authorizing from the merchant to proceed

with the transaction. Once the merchant has received the transaction authorization from the

acquirer gateway 106, the merchant completes the sales transaction with the consumer."

22.   SET does not disclose the use of a filter or filter engine.

23.   Tozzoli discusses the use of filtering when processing transactions over the Internet. It

would have been obvious to one of ordinary skill in the art at the time the invention was made to

include filtering, since Tozzoli discloses in column 11, lines 52-57 that such a modification

allows the merchant to verify and access data fields quickly and process the order accurately.

24.   Regarding claim 2, SET discloses a bank interface adapted to receive the request and transmitting the request to the seller's bank in figure 1, blocks 106, 122', and 142', as well as column 3, lines 13-47.

25.   Tozzoli discloses the filter engine and reformatting the request in figures 3a-3c, column 7, line 42 to column 8, line 3, column 11, lines 52-58, and column 12, line 64 to column 13, line 4.

26.   With regards to claim 3, SET teaches wherein the bank interface is further adapted to receive a service response to the request from the seller's bank and forward the response to the filter engine, see figure 1, as well as column 3, lines 13-47.

27.   Regarding claim 5, Tozzoli teaches a Web server adapted to parse requests redirected by the filter, see figure 5, as well as column 7, line 53 to column 8, line 12.

28.   Regarding claim 6, SET teaches wherein services provided by the seller's bank are provided within the context of a four-corner model, see figure 1.

29.   With regards to claim 7, SET teaches wherein the four-corner model comprises the buyer, the seller, the seller's bank, and a buyer's bank, see figure 1, where the buyer is the consumer, block 102, the seller is the merchant, block 104, the seller's bank is the acquiring bank, block 108, and the buyer's bank is the issuing bank, block 112.

30.   Regarding claim 8, neither SET nor Tozzoli disclose wherein the filter is implemented

using ISAPI.

31.   It would have been obvious to one of ordinary skill in the art at the time the invention

was made to implement the filter using ISAPI, since it has been held that ISAPI is an easy-to-

use, high performance interface for back-end applications and has significant performance

advantages over the CGI specification, such as having its own dynamic-link library.

32.   Regarding claim 9, SET teaches wherein the Internet service application is adapted to

generate HTTP responses based on data received from the filter engine, see column 3, lines 13-

47.

33.   Regarding claim 23, Tozzoli and SET do not teach wherein the filter engine determines

whether an HTTP request contains data requiring signature by applying filtering rules.

34.   It would have been obvious to one of ordinary skill in the art at the time the invention

was made to have the filter engine determine if the data required a signature, since SET discloses

at column 3, lines 32-47 that such a modification would ensure that the transaction was

authorized by the appropriate user.

35.   Regarding claim 24, Tozzoli and SET do not teach wherein the filter engine is

programmed to recognize each HTTP request that includes data requiring signature.

36.   It would have been obvious to one of ordinary skill in the art at the time the invention

was made to have the filter engine recognize that the data has a digital signature, since SET

discloses at column 3, lines 32-47 that such a modification would ensure that the transaction was

authorized by the appropriate user.

37.   Regarding claim 25, Tozzoli and SET do not teach wherein the filter engine is

programmed to recognize HTTP requests transmitted by the Web browser that have been

modified to include a special tag that indicates whether the request includes data that requires

signature.

38.   It would have been obvious to one of ordinary skill in the art at the time the invention

was made to have the filter engine recognize special tags that indicate the request for a digital

signature, since SET discloses at column 3, lines 32-47 that such a modification would ensure

that the transaction was authorized by the appropriate user.

39.   Regarding claim 28, neither SET nor Tozzoli teach wherein the filter engine provides an

abstracted front-end interface via java remote method invocation.

40.   It would have been obvious to one of ordinary skill in the art at the time the invention

was made for the filter to comprise of an abstracted front-end, since it has been held that an

abstracted front-end is an easy-to-use, high performance interface for linking to back-end

applications.

41.   Regarding claim 29, Tozzoli teaches wherein the filter engine employs a rules class, see

column 11, line 52 to column 12, line 11.

42.   Regarding claim 31, neither SET nor Tozzoli teach wherein the bank interface is

designed with a plug-in based architecture.

43.   Linehan discloses wherein the bank interface is designed with a plug-in based

architecture. It would have been obvious to one of ordinary skill in the art at the time the

invention was made to design the bank interface with a plug-in based architecture, since Linehan

discloses at column 9, lines 3-28 that such a modification would allow the bank to operate with

foreign consumers.

44.   Regarding claim 32, SET and Tozzoli do not teach wherein the bank interface supports

an abstract front-end interface to allow communication via a plurality of middleware

technologies.

45.   It would have been obvious to one of ordinary skill in the art at the time the invention

was made for the filter to comprise of an abstracted front-end, since it has been held that an

abstracted front-end is an easy-to-use, high performance interface for interacting with

middleware from a plurality of vendors.

46.   Regarding claim 33, SET teaches wherein the bank interface is adapted to create and

transmit OCSP requests, see column 3, lines 25-47.

47.   Regarding claim 34, SET teaches wherein the bank interface comprises a certificate

status check module, see column 3, lines 25-47.

48.   Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over SET in view of Tozzoli as applied to claim 2 above, and further in view of Linehan.

49.   With regards to claim 4, SET does not disclose wherein the service is certificate validation.

50.   Linehan discloses certificate validation. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include certificate validation, since Linehan states at column 4, lines 23-44 that such a modification would serve to validate that the payment was authorized by the card holder.

51.   Claims 10-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over SET in view of Tozzoli as applied to claim 1 above, and further in view of U.S. Patent No. 6,052,785 to Lin et al., hereinafter Lin.

52.   Regarding claim 10, neither SET nor Tozzoli disclose wherein the Internet server application is adapted to pass a hash table to the filter engine.

53.   Lin teaches wherein the Internet server application is adapted to pass a hash table to the filter engine. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the server application pass a hash table to the filter engine, since Lin discloses at column 8, lines 43-56 that such a modification supports authentication, which is necessary to prevent fraudulent transactions.

54.   With regards to claim 11, Lin teaches wherein the hash table comprises the headers from the redirected HTTP request, see figure 3, as well as column 8, line 51 to column 9, line 17.

55.   With regards to claim 12, Lin teaches wherein the hash table comprises the method of the redirected HTTP request, see figure 3, as well as column 8, line 51 to column 9, line 17.

56.   With regards to claim 13, Lin teaches wherein the hash table comprises the content-type of the redirected HTTP request, see figure 3, as well as column 8, line 51 to column 9, line 17.

57.   With regards to claim 14, Lin teaches wherein the hash table comprises the buyer computer's IP address, see figure 3, as well as column 8, line 51 to column 9, line 17.

58.   With regards to claim 15, Lin teaches wherein the hash table comprises the actual data in the redirected HTTP request, see figure 3, as well as column 8, line 51 to column 9, line 17.

59.   With regards to claim 16, Lin teaches wherein the hash table comprises a unique session ID, see figure 3, as well as column 8, line 51 to column 9, line 17.

Conclusion

60.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christian La Forgia whose telephone number is (571) 272-3792. The examiner can normally be reached on Monday thru Thursday 7-5.

61.   If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

62.   Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Christian LaForgia
Patent Examiner   CHRISTOPHER REVAK
Art Unit 2131   PRIMARY EXAMINER

clf   CR 3/17/06